

**U. S. PLANT PATENT APPLICATION OF**

**CORNELIS ARIE HOOGENDOORN**

**FOR: ALSTROEMERIA PLANT NAMED**

**‘ZALSASWEET’**

TITLE: ALSTROEMERIA PLANT NAMED 'ZALSASWEET'

APPLICANT: CORNELIS ARIE HOOGENDOORN

BOTANICAL CLASSIFICATION/CULTIVAR DESIGNATION:

*Alstroemeria hybrida* cultivar Zalsasweet

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## BACKGROUND OF THE INVENTION

The present Invention relates to a new and distinct cultivar of Alstroemeria plant, botanically known as *Alstroemeria hybrida*, commercially used as a cut flower Alstroemeria, and hereinafter referred to by the name 'Zalsasweet'.

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The new Alstroemeria is a product of a planned breeding program conducted by the Inventor in Hillegom, The Netherlands. The objective of the breeding program was to develop new cut flower Alstroemeria cultivars with desirable flower and plant qualities, attractive flower colors and excellent postproduction longevity.

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The new Alstroemeria originated from a cross-pollination made by the Inventor in June, 1997 in Hillegom, The Netherlands, of a proprietary *Alstroemeria hybrida* selection identified as 95705-5, not patented, as the female, or seed, parent with a proprietary *Alstroemeria hybrida* selection identified as 96391-4, not patented, as the male, or pollen, parent. The new Alstroemeria was discovered and selected by the Inventor as a

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flowering plant within the progeny of the stated cross-pollination in a controlled environment in Hillegom, The Netherlands in May, 1998.

Asexual reproduction of the new cultivar by root divisions taken in a controlled environment in Hillegom, The Netherlands, since September, 5 1998, has shown that the unique features of this new *Alstroemeria* are stable and reproduced true to type in successive generations of asexual propagation.

### SUMMARY OF THE INVENTION

Plants of the cultivar *Zalsasweet* have not been observed under all 10 possible environmental conditions. The phenotype may vary somewhat with variations in environment such as temperature and light intensity without, however, any variance in genotype.

The following traits have been repeatedly observed and are determined to be the unique characteristics of 'Zalsasweet'. These 15 characteristics in combination distinguish 'Zalsasweet' as a new and distinct cultivar:

1. Erect and strong flowering stems.
2. Vigorous growth habit.
3. Pink and yellow bi-colored flowers with few to no stripes.
- 20 4. Good postproduction longevity.

Plants of the new *Alstroemeria* can be compared to plants of the female parent selection. In side-by-side comparisons conducted in Rijnsburg, The Netherlands, plants of the new *Alstroemeria* differed from plants of the female parent selection in the following characteristics:

- 5                   1.     Plants of the new *Alstroemeria* had longer flowering stems than plants of the female parent selection.
2.     Plants of the new *Alstroemeria* and the female parent selection differed in flower color.

10                   Plants of the new *Alstroemeria* can be compared to plants of the male parent selection. In side-by-side comparisons conducted in Rijnsburg, The Netherlands, plants of the new *Alstroemeria* differed from plants of the male parent selection in the following characteristics:

1.     Plants of the new *Alstroemeria* had shorter flowering stems than plants of the male parent selection.
- 15                   2.     Inner perianths of plants of the new *Alstroemeria* were virtually without stripes, however inner perianths of plants of the male parent selection had numerous stripes.

20                   Plants of the new *Alstroemeria* can be compared to plants of the cultivar Stabec, disclosed in U.S. Plant Patent number 9,041. In side-by-side comparisons conducted in Rijnsenhout, The Netherlands, plants of the

new *Alstroemeria* differed from plants of the cultivar *Stabec* in the following characteristics:

1. Plants of the new *Alstroemeria* had smaller flowers than plants of the cultivar *Stabec*.
- 5        2. Plants of the new *Alstroemeria* had pink and yellow bi-colored flowers that were virtually without stripes whereas plants of the cultivar *Stabec* had red and white bi-colored flowers with stripes.
- 10       3. Plants of the new *Alstroemeria* had shorter peduncles than plants of the cultivar *Stabec*.

#### BRIEF DESCRIPTION OF THE PHOTOGRAPH

The accompanying colored photograph illustrates the overall appearance of the new *Alstroemeria*, showing the colors as true as it is reasonably possible to obtain in colored reproductions of this type.

15       Colors in the photograph may differ slightly from the color values cited in the detailed botanical description which accurately describe the colors of the new *Alstroemeria*. The photograph comprises a side perspective view of a typical flowering stem of 'Zalsasweet'.

#### DETAILED BOTANICAL DESCRIPTION

20       The aforementioned photograph, following observations and measurements describe plants of the new *Alstroemeria* grown in

Rijzenhout, The Netherlands in a glass-covered greenhouse in ground beds. During the production of the plants, day temperatures ranged from 15 to 25°C, night temperatures ranged from 10 to 15°C and light levels averaged 5,000 lux. Plants used for the photograph and description were  
5 about one year old. The photograph and the description were taken during August and September, 2002. Color references are made to the Royal Horticultural Society Colour Chart, 1995 Edition, except where general terms of ordinary dictionary significance are used.

BOTANICAL CLASSIFICATION:

10 *Alstroemeria hybrida* cultivar Zalsasweet.

PARENTAGE:

Female parent: Proprietary *Alstroemeria hybrida* selection identified as 95299-4, not patented.

Male parent: Proprietary selection of *Alstroemeria hybrida*  
15 identified as 86021-7B, not patented.

PROPAGATION:

Type: By root divisions.

Root description: Fibrous, fleshy, thick; white, close to 155D, in color.

20 Rooting habit: Freely branching.

Rhizomes:

Shape: Elongate; rounded.

Length: About 10 to 30 cm.

Diameter: About 3 to 10 mm.

5 Texture: Smooth.

Color: Close to 155D.

PLANT DESCRIPTION:

Plant habit: Upright; freely branching, bushy appearance.

Vigorous growth habit.

10 Time from planting to harvest of cut flowers: About 80 to 90 days.

Number of flowering stems produced per year: About 224 to 240.

Plant height: About 125 to 175 cm.

Plant diameter (spread): About 25 to 30 cm.

Flowering stem description:

15 Aspect: Erect.

Length: About 154 cm.

Diameter: About 7.5 to 10 mm.

Internode length: About 4 to 7 cm.

Strength: Strong.

20 Texture: Glabrous.

Color: Close to 144A to 144B.

Foliage description: Leaves asymmetrical; sessile.

Length: About 15 to 17 cm.

Width: About 2 to 4 cm.

Shape: Lanceolate.

5 Apex: Acute.

Base: Attenuate.

Margin: Entire.

Texture, upper and lower surfaces: Smooth, glabrous.

Venation pattern: Parallel.

10 Color:

Developing and fully developed foliage, upper  
surface: Close to 137C; glossy.

Developing and fully developed foliage, lower  
surface: Close to 137C.

15 Venation, upper and lower surfaces: Close to 137C.

#### FLOWER DESCRIPTION:

Flower type and habit: Single cup-shaped flowers arranged in  
compound umbels. Perianth segments separate. Freely and  
continuously flowering. Flowers not persistent.

20 Natural flowering season: Flowering continuous during the spring  
in The Netherlands.

Fragrance: None detected.

Flower longevity on the plant: About four weeks.

Flower longevity as a cut flower: About 16 days.

Flower buds (showing color):

5                      Length: About 2 to 3 cm.

Diameter: About 1 to 2 cm.

Shape: Roughly ovoid.

Color: Pink to whitish green.

Umbel length: About 12 to 15 cm.

10                    Umbel diameter: About 19 to 21 cm.

Number of flowers per umbel: About 8 to 11.

Flower length (height): About 6 to 7 cm.

Flower diameter: About 5.5 to 7.5 cm.

Flower depth: About 5.5 to 6.5 cm.

15                    Perianth:

Arrangement: Six arranged in two whorls, each whorl with two lateral and one median segments.

Size, inner perianth segments:

20                    Length: Laterals, about 6.5 to 7.5 cm; median, about 5.5 to 6 cm.

Width, laterals and median: About 2 to 2.5 cm.

Size, outer perianth segments:

Length: Laterals, about 6 to 6.5 cm; median, about 6.5 to 7 cm.

Width, laterals and median: About 3.5 to 4 cm.

5 Shape, inner perianth, all segments: Oblanceolate.

Shape, outer perianth, all segments: Obovate.

Apex, inner perianth, all segments: Acute.

Apex, outer perianth, all segments: Bracket-shaped.

Base, inner and outer perianths, all segments: Attenuate.

10 Margin, inner and outer perianths, all segments: Entire; weakly undulate.

Texture, inner and outer perianths, all segments: Smooth, glabrous; velvety.

Color, inner perianth, lateral tepals:

15 When opening and fully opened, upper surface:  
Towards the apex, 68A to 68B; towards the base, 8B to 8C with white tip; occasionally a few small spots and stripes, close to 187A.

20 When opening and fully opened, lower surface:  
Towards the apex, 68A to 68B; towards the base, 8B to 8C.

Color, inner perianth, median tepal:

When opening and fully opened, upper and lower surfaces: 68A to 68B with white tip.

Color, outer perianth, lateral and median tepals:

5                      When opening and fully opened, upper surface: 68A to 68B; apex tip, green.

When opening and fully opened, lower surface: 68A to 68B; apex tip and venation, green.

Peduncles:

10                    Length: About 3 to 6 cm.

Diameter: About 2 to 3 mm.

Strength: Strong.

Angle: About 20 to 30° from vertical.

Texture: Smooth, glabrous.

15                    Color: Close to 137A.

Pedicels:

Length: About 1 to 3 cm.

Diameter: About 2 to 4 mm.

Strength: Strong.

20                    Angle: About 20 to 30° from vertical.

Texture: Smooth, glabrous.

Color: Close to 137A.

Reproductive organs:

Stamens:

Quantity per flower: Six.

5                      Anther shape: Elliptical, flat.

Anther length: About 8 mm.

Anther diameter: About 3 mm.

Anther color: Close to 153B.

Pollen amount: Scarce.

10                     Pollen color: Close to 177A.

Pistils:

Quantity per flower: One.

Style length: About 4 to 5 cm.

Style color: Pink.

15                     Ovary color: Close to 144A.

Fruit:

Shape: Globular.

Color: Brownish.

DISEASE/PEST RESISTANCE:

20                     Plants of the new *Alstroemeria* have not been observed to be  
resistant to pathogens and pests common to *Alstroemerias*.

TEMPERATURE TOLERANCE:

Plants of the new *Alstroemeria* have been observed to tolerate temperatures from -5 to 40°C.